

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/11308

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl.<sup>7</sup> C07D307/68, 307/54, 307/42, 307/80, 417/12, 405/12, 409/12,  
417/06, 413/06, A61K31/341, 31/343, A61P3/06, 3/10, 1/14,  
1/18, 9/10, 13/12, 17/00, 19/02, 9/12, 25/28, 35/00, 37/00,

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl.<sup>7</sup> C07D307/68, 307/54, 307/42, 307/80, 417/12, 405/12, 409/12,  
417/06, 413/06, A61K31/341, 31/343, A61P3/06, 3/10, 1/14,  
1/18, 9/10, 13/12, 17/00, 19/02, 9/12, 25/28, 35/00, 37/00,

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CAPLUS (STN), REGISTRY (STN)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	LAPINA, I.M. et al., "Acylation of amino acids with francarb oxylic acid chlorides", Russian Journal of General Chemistry, 2001, Vol.71, No.9, pages 1479 to 1483; in particular, table 1	1-6,8,10,11, 13,14,16,18, 26,28
X	ALZEER, J. et al., "Phenyl $\beta$ -Methoxyacrylates: A New Antimalarial Pharmacophore", Journal of Medicinal Chemistry, 1999, Vol.43, No.4, pages 560 to 568; in particular, compounds 18, 33	1,5,6,8,10, 11,16,29,30
P,X	WO 02/092590 A1 (GLAXO GROUP LTD.), 21 November, 2002 (21.11.02), (Family: none)	1-37,45-51
P,X	WO 03/000649 A1 (WYETH, JOHN, AND BROTHER LTD.), 03 January, 2003 (03.01.03), (Family: none)	1-37,45-51

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:  
 "A" document defining the general state of the art which is not considered to be of particular relevance  
 "E" earlier document but published on or after the international filing date  
 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  
 "O" document referring to an oral disclosure, use, exhibition or other means  
 "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  
 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art  
 "&" document member of the same patent family

Date of the actual completion of the international search  
14 October, 2003 (14.10.03)

Date of mailing of the international search report  
04 November, 2003 (04.11.03)

Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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## Continuation of A. CLASSIFICATION OF SUBJECT MATTER (International Patent Classification (IPC))

Int.Cl<sup>7</sup> 15/00, 5/48, 25/02, 27/02, 43/00

(According to International Patent Classification (IPC) or to both national classification and IPC)

## Continuation of B. FIELDS SEARCHED

Minimum Documentation Searched (International Patent Classification (IPC))

Int.Cl<sup>7</sup> 15/00, 5/48, 25/02, 27/02, 43/00

Minimum documentation searched (classification system followed by classification symbols)

## Continuation of Box No. I-2 of continuation of first sheet (1)

The term "prodrug" used in the claims is unclear as to what structure is implied, even when the statements in the description are investigated. This term hence makes the scope of the compounds and medicines of the invention unclear.

Consequently, claims 29-37 and 45-51 and the description do not comply with the given requirements to such a degree that a meaningful international search can be made.

In this international search report, a search was hence made through prior art documents with respect to the compounds specified in the description.

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International application No.

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 03/059875 A2 (SIGMA-TAU INDUSTRIE FARMACEUTICHE RIUNITE S.P.A.), 24 July, 2003 (24.07.03), (Family: none)	1-37, 45-51
P, X	WO 02/100403 A1 (ELI LILLY AND CO.), 19 December, 2002 (19.12.02), In particular, compounds 156, 159 (Family: none)	1-37, 45-51
Y	WO 02/059098 A1 (GLAXO GROUP LTD.), 01 August, 2002 (01.08.02), & EP 1349843 A1	1-37, 45-51
Y	WO 02/14291 A1 (Nippon Chemiphar Co., Ltd.), 21 February, 2002 (21.02.02), & EP 1310494 A1	1-37, 45-51
Y	WO 99/46232 A1 (Ono Pharmaceutical Co., Ltd.), 16 September, 1999 (16.09.99), & EP 1067109 A1	1-37, 45-51
A	WO 02/057783 A2 (GLAXO GROUP LTD.), 25 July, 2002 (25.07.02), (Family: none)	35

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## Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 38-44  
because they relate to subject matter not required to be searched by this Authority, namely:  
Claims 15-28 pertain to a method for treatment of the human body by therapy.
2. ☒ Claims Nos.: 29-37 and 45-51  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
(See extra sheet)
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.